

REMARKS

The Office Action mailed January 9, 2007, has been carefully reviewed. The claims in the application are now claims 75 and 79-106, the apparatus claims having been deleted above, **without prejudice** as noted below. Applicant respectfully submits that the claims define novel and unobvious subject matter under §§102 and 103, and therefore should be allowed. Applicant therefore also respectfully requests favorable reconsideration and allowance.

In paragraph 9 on page 7 of the Office Action, the PTO suggests that applicant's recitation of a "high" core speed in claims 75 and 79-105 may be disregarded as it is "relative and does not define any value." These claims have now been amended above to recite a core speed of approximately 1000 mm/s at the center of the molten polymer mass flow, support in the specification appearing at line 4 of page 35.

To simplify the issues in the present application, or at least reduce the issues at the present time, all the apparatus claims have been deleted above, without prejudice, the applicant reserving the right to prosecute claims to the apparatus in a continuing application without any penalty whatsoever, applicant relying on §§120 and 119. No abandonment of the apparatus claims is intended.

Claims 75, 79-106 and 109-151 have been rejected as obvious under §103 from Klinkhammer in view of either Rudolf or Rees, further in view of Rosato. Applicant understands that there are thus two rejections, the first based on Klinkhammer in view of Rudolf and Rosato, and the second based on Klinkhammer in view of Rees and Rosato. Both of these rejections are respectfully traversed.

Klinkhammer and Rosato have been previously applied and are discussed in the preceding Reply, the commentary of which regarding these citations is respectfully repeated by reference. Rees and Rudolf (Rudolf et al USP 5,217,732) are newly cited.

Rees relates to a particular situation wherein it is desired to open the cavity at the parting line, and therefore a high pressure is utilized, namely a pressure which approaches (but does not quite reach) the bottom of applicant's range. More importantly, however, is that the circumstances taught by Rees to use high pressure (i.e. to move a mold part to open a mold cavity) do not exist in Klinkhammer. Accordingly, there is no reason in Klinkhammer to use such high pressures, which would only increase the cost with no apparent advantage.

Rudolf also uses high pressure under particular circumstances which do not exist in Klinkhammer, namely when it is desired to force molten plastic into a very thin cavity located at a considerable distance from the plastic injection port. In other words, under the special circumstances of Rudolf,

sufficient pressure is used to fill the mold cavity, not more than necessary to fill the mold cavity. Again, there would be no motive or incentive for the person of ordinary skill in the art, looking at Klinkhammer, to use an excessive amount of pressure and thus increase the costs without any apparent benefit.

The rejection is predicated on the alleged obviousness of using extremely high pressures in injecting molding according to the process of Klinkhammer. Even acknowledging that such very substantial pressures are known and have been occasionally used does not make it obvious to have used these pressures in Klinkhammer. The fact of the matter is that no one skilled in the art would use a greater pressure than that believed necessary to produce the desired product, usually only the pressure necessary to fill the cavity, as the use of greater pressure would simply increase the cost with no apparent advantage.

The Spilger declaration, filed with the last Reply, states as fact that the pressure utilized according to the present invention far exceeds that necessary to fill the cavity. This is evidence which the PTO may not properly ignore. Thus, in spite of the fact that some prior art has used higher pressures in special circumstances, not apparently necessary in the present case, does not detract from the non-obviousness of the present invention, i.e. applicant has flown in the face of conventional wisdom and has achieved an improved product. What applicant did and what is claimed is the antithesis of obviousness.

As previously acknowledged, everyone in the prior art uses an injection pressure needed to fill the cavity, and applicant agrees that it would have been within the ordinary skill of the art to use sufficient pressure in Klinkhammer so as to properly fill the cavity. But applicant maintains that there is no apparent reason in Klinkhammer for using a greater pressure, regardless of what the subsidiary references indicate has been done on occasion, undoubtedly due to special circumstances. Again, it is illogical to use a greater injection pressure than that necessary to fill the cavity, **unless there is an apparent need to do so**. Klinkhammer provides no such apparent need, and the secondary references also provide no such apparent need in the Klinkhammer environment.

A declaration is of course evidence, and all evidence must be given weight. In the bottom paragraph on page one of his declaration, Georg Spilger also gives his opinion that the person "skilled in the art would likely and usually use only the maximum pressure to fill the mold cavity," and states as fact that "selecting a greater pressure would be more expensive", and this would be a reason why those skilled in the art would not use the greater pressures called for in the present invention. Engineer Spilger also states as fact that "in order to fill the mold cavity, the injection pressure needs to be only about 300 bar, far less than the injection pressure used in the [present] invention...."

The factual statements made by Georg Spilger must be accepted by the PTO as evidence. The opinions given by Mr. Spilger must also be given weight as the opinions of an expert in the present field as one who received his degree in the "science of plastic materials" and who has worked in the field for 25 years. Thus, in spite of the secondary references, no reason or purpose exists to substantially increase the Klinkhammer injection pressure and thus radically increase the cost. It simply would not have been obvious to do so.

Moreover, the claims have now been amended (as indicated above) to recite what is meant by a high core speed. Insofar as is known, this is further additional novel and unobvious subject matter.

Withdrawal of the rejections is in order and is respectfully requested.

Claims 75, 79-106, 109-112, 118-127, 135 and 147-151 have been rejected as obvious under §103 from Kutik in view of Rudolf or Rees, and further in view of Rosato. These two rejections are respectfully traversed for exactly the same reasons pointed out above with respect to the rejections under §103 based on Klinkhammer in view of Rudolf or Rees, and further in view of Rosato, such Remarks above being respectfully repeated by reference, substituting Kutik in place of Klinkhammer.

Withdrawal of the rejection is in order and is respectfully requested.

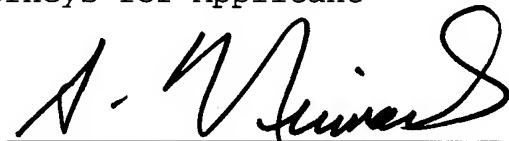
The prior art documents of record and not relied upon by the PTO have been noted, along with the implication that such documents are deemed by the PTO to be insufficiently material to warrant their application against any of applicant's claims.

Applicant believes that all issues raised in the Official Action have been addressed above in a manner that should lead to patentability of the present application. Favorable consideration and early formal allowance are respectfully requested.

Respectfully submitted,

BROWDY AND NEIMARK, P.L.L.C.
Attorneys for Applicant

By



Sheridan Neimark
Registration No. 20,520

SN:kg
Telephone No.: (202) 628-5197
Facsimile No.: (202) 737-3528
G:\BN\R\rau\Weihsrauch3\PTO\2007-04-09 PCTAMD.doc